trimethoxyphenyl)buta-1,3-diene (2), were isolated from the roots of Zingiber cassumunar Roxb. (Zingiberaceae), as active constituents by bioassay-guided fractionation using a cytotoxicity assay against the HT1080 (human fibrosarcoma) cells. The isolates 1 and 2 exhibited a significant cytotoxicity with IC_{50} values of 0.71 and 0.74μg/ml, respectively, which are comparative to the positive control ellipticine (IC_{50} = 1.1μg/ml). To the best of our knowledge, this is the first report on the cytotoxic activity for those compounds 1 and 2. The isolation and cytotoxic activity will be discussed in the presentation.

[PD2-21] [04/18/2003 (Fri) 13:30 - 16:30 / Hall P]

Saucerneol B with Hepatoprotective Effect of the Roots of Saururus chinensis

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In order to find the new hepatoprotective agents from natural products, the isolation and identification of biological active components of the roots of *Saururus chinensis* has been carried out. A MeOH extract of this plant showed the significant hepatoprotective effect on tacrine-induced cytotoxicity in Hep G2 cells. Five lignans including sauchinone, manassantin A, manassantin B, saucerneol B, and di-*O*-methyltetrahydrofuriguaiacin B were isolated and identified by spectroscopic evaluation. Of these saucerneol B exhibited the significant hepatoprotective effect *in vitro*. It showed a dose-dependent hepatoprotective effect.

[PD2-22] [04/18/2003 (Fri) 13:30 - 16:30 / Hall P]

Catechin with Hepatoprotective Effect of the Leaves of Juglans sinensis

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There is now increasing evidence that free radicals and active oxygen species are involved in a variety of pathological events. Free radical-mediated cell damage and free radical attack on polyunsaturated fatty acids result in the formation of lipid radicals. These lipid radicals react readily with molecular oxygen to produce peroxy radicals responsible for initiating lipid peroxidation. The peroxidation of cellular membrane lipid can lead to cell necrosis and considered to be implicated in a number of pathophysiological conditions including liver disease. A MeOH extract of the leaves of *Juglans sinensis* was examined for its scavenging effect on DPPH and hepatoprotective effects on tacrine-induced cytotoxicity in human hepatoma cell line, Hep G2 cells. Assay-guided fractionation has been furnished six phenolic compounds. Of these catechin showed the significant hepatoprotective effect *in vitro*. It showed a dose-dependent hepatoprotective effect *in vitro*.

[PD2-23] [04/18/2003 (Fri) 13:30 - 16:30 / Hall P]

Radical scavenging and tyrosinase inhibitory activities from the herbal drugs

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In order to search for antioxidants from the plants, eighty-two kinds of herbal medicines were investigated. The MeOH extracts of Euryales Semen, Alpiniae Officinari Rhizoma, Drynariae Rhizoma, Sophorae Flos, Trachelospermi Caulis, Crassirhizomae Rhizoma, Euphorbiae lathyridis Semen, Lini Semen, Myristicae Semen, Epimedii Herba, Santali Lignum rubrum, Perillae Herba, Amomi Tsao-Ko Fructus and Garanii Herba showed potent antioxidative activities using the 1,1-diphenyl-2-picrylhydrazyl free radical generating system. Also, in the screening of tyrosinase inhibition activity, Alpiniae Officinari Rhizoma and Sophorae Radix exhibited inhibitory activity against the mushroom tyrosinase, which is the key enzyme for the melanin biosynthesis.

[PD2-24] [04/18/2003 (Fri) 13:30 - 16:30 / Hall P]

Virus-cell fusion inhibitory compounds from Ailanthus altissima Swingle

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In order to search for the anti-HIV agents from natural products, Eighty MeOH extracts of medicinal plants were applied to a syncytia formation inhibition assay which is based on the interaction between the HIV-1 envelope glycoprotein gp120/gp41 and the cellular membrane protein CD4 of T lymphocytes. Among them, Ailanthus altissima showed a potent virus-cell fusion inhibitory activity. Repeated column chromatoghaphy of the methylene chloride fraction of A. altissima afforded compounds 1 (β-sitosterol-3-O-β-D-glucoside), 2 (tetramethoxy-coumarin), and 3 (ocotillone). Virus-cell fusion inhibitory activity of compound 3 (ocotillone) was 70.76±4.09 % at the concentration of 100 ㎍/㎖.

[PD2-25] [04/18/2003 (Fri) 13:30 - 16:30 / Hall P]

Anti-inflammatory Activities of Diarylheptanoid from the Bark of *Alnus japonica* Steudel

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The bark of *Alnus japonica* has been used of fever, hemorrhage and diarrehea in oriental traditional medicine. This research was focused on the anti-inflammatory activities of diarylheptanoid from the bark of A. japonica on RAW 264.7 cell line.
Phytochemical examination of the bark of *Alnus japonica* Steudel had led to the isolation of ten diarylheptanoids. To investigate the anti-inflammatory activities of these compounds, nitric oxide and PGE2 production inhibitory in IFN-γ, LPS stimulated RAW 264.7 cell were examined. NO level and iNOS activity were reduced by the addition of compound 6 and 7 to incubation medium or the IFN-γ, LPS stimulated RAW 264.7 cell.
And PGE2 level and COX-2 activity were reduced by the addition of compound 6, 7, 8 and 10 to incubation medium of the IFN-γ, LPS stimulated RAW 264.7 cell. These NO and PGE2 production inhibitory effects were significantly different compared with control. These results suggest that diarylheptanoid from the bark of Alnus japonica Steudel might be a developed as a potent anti-inflammatory agent.